

**REMARKS**

Entry of the foregoing amendments is respectfully requested.

**Summary of Amendments**

Upon entry of the foregoing amendments, claims 33 and 37-41 are amended and claim 36 is cancelled, whereby claims 18-35 and 37-41 will be pending, with claims 18, 26 and 33 being independent claims.

Support for the new claims can be found throughout the present specification and in the original claims.

Applicants emphasize that the amendment to claim 33 is without prejudice or disclaimer, and Applicants expressly reserve the right to prosecute claim 33 in its original, unamended form in one or more continuation and/or divisional applications.

Applicants further point out that entry of the present amendments is proper because they do not raise any new issues and do not require any further search. In particular, it is noted that amended independent claim 33 corresponds generally to cancelled claim 36 and thus, has already been considered by the Examiner.

**Summary of Office Action**

Claims 33-35 are rejected under 35 U.S.C. § 102(a) as allegedly being anticipated by Muller et al., U.S. Patent No. 6,248,338 (hereafter “MULLER”).

Claims 18-32 and 36-41 are rejected under 35 U.S.C. § 103(a) as allegedly being

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unpatentable over MULLER and further in view of Peffly et al., U.S. Patent No. 5,997,886 (hereafter "PEFFLY").

Claims 26-32 and 36-41 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MULLER and further in view of Flick, Cosmetic Additives, 1991 (hereafter "FLICK").

Claims 18-32 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MULLER and further in view of Rollat et al., US 2003/0147834 (hereafter "ROLLAT").

#### **Response to Office Action**

Reconsideration and withdrawal of the rejections of record are respectfully requested, in view of the foregoing amendments and the following remarks.

#### ***Response to Rejection under 35 U.S.C. § 102(a)***

Claims 33-35 are rejected under 35 U.S.C. § 102(a) (probably 102(b) was intended) as allegedly being anticipated by MULLER. In this regard, the rejection relies on Example 1 of MULLER and essentially alleges that the composition disclosed therein comprises all of the components which are recited in the rejected claims.

Applicants note that independent claim 33 has been amended to correspond generally to (now cancelled) claim 36. Accordingly, this rejection is moot.

***Response to Rejection under 35 U.S.C. § 103(a) over MULLER in View of PEFFLY***

Claims 18-32 and 36-41 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MULLER and further in view of PEFFLY. The rejection concedes that MULLER fails to disclose the specific cationic polymers recited in claim 36 but essentially alleges that using this type and other types of polymers in the compositions of MULLER would have been obvious to one of ordinary skill in the art in view of PEFFLY. Further, the rejection essentially alleges that PEFFLY teaches adding hair styling or hair shine agents to hair styling products in combination with hair conditioning agents and that examples of hair styling and hair shine agents mentioned in PEFFLY include quaternized hydroxyethylcellulose ethers, nonionic polymers, PVP/VA copolymers and anionic acrylate copolymers.

Applicants respectfully traverse this rejection. Particularly, there is no motivation for one of ordinary skill in the art to combine the teachings of MULLER and PEFFLY. In this regard, it is pointed out that MULLER is directed to a composition for cleaning or caring for the skin, teeth or hair or for cleaning smooth surfaces, which composition has an aqueous phase containing a pregelatinized, crosslinked starch selected from a C<sub>2</sub>-C<sub>5</sub> hydroxyalkyl starch and a C<sub>2</sub>-C<sub>18</sub> acyl starch. The starch acts 1) as a stability improver, 2) as a viscosity regulator, 3) as a (co)emulsifier, 4) as a skin feel improving agent and 5) as an agent for improving hairdressing characteristics. See, e.g., abstract of MULLER.

Accordingly, MULLER does not focus on hair care compositions but rather is directed generally to compositions for cleaning or caring for the skin, teeth or hair or for cleaning smooth surfaces. For example, in addition to hair rinses and shampoos, the Examples of MULLER describe

products as diverse as foam bath compositions, O/W cosmetic creams, alcohol-containing lotions with a deodorant action, alcohol containing creams with a light protection action, O/W body lotions, shaving foams, W/O body creams, dishwashing compositions, a dental cream, an emulsifier-free O/W body lotion, and a thickened hair bleaching system. Virtually the only thing these different products have in common is that they all contain the pregelatinized, crosslinked starch selected from a C<sub>2</sub>-C<sub>5</sub> hydroxyalkyl starch and a C<sub>2</sub>-C<sub>18</sub> acyl starch which is described in detail by MULLER and which clearly represents the core of the compositions described therein.

PEFFLY, on the other hand, is directed to relatively low VOC (Volatile Organic Compound) hair styling compositions which provide good style retention without unacceptable stickiness or stiffness. These compositions comprise a hair styling polymer and a carrier comprising two types of solvents and are characterized by satisfying a specified relationship between a Stiffness Value and a Curl Retention Index See, e.g., abstract of PEFFLY.

Applicants are unable to see why one of ordinary skill in the art who wants to modify one specific example of the many types of compositions which are described by MULLER, i.e., hair care compositions (comprising a pregelatinized, crosslinked starch selected from a C<sub>2</sub>-C<sub>5</sub> hydroxyalkyl starch and a C<sub>2</sub>-C<sub>18</sub> acyl starch), would have any apparent reason to consult a document (PEFFLY) which relates to compositions which have virtually nothing in common with the hair care (or any other) compositions of MULLER, i.e., hair styling compositions which comprise a hair styling polymer and a particular carrier and show a specified relationship between a Stiffness Value and a Curl Retention Index, and neither does the Examiner provide any explanation in this regard.

Further, even if one were to assume, *arguendo*, that one of ordinary skill in the art would be motivated to combine specific parts of the teaching of MULLER (relating to hair care compositions) with the teaching of PEFFLY, it is not seen what would motivate one of ordinary skill in the art to pick and choose specific types of the non-silicone-containing hair styling polymers disclosed in PEFFLY for incorporation into the hair care compositions of MULLER. In this regard, it is pointed out that PEFFLY discloses hundreds, if not thousands, of different examples of hair styling polymers in the passage from col. 3, line 54 to col. 11, line 13 of this document and it is not seen that any of the polymers recited in the rejected claims are particularly recommended by PEFFLY.

Even further, it is noted that the only hair care compositions which are mentioned in MULLER are hair rinse compositions (Examples 1-3) and shampoos (Examples 4-6). In this regard, Applicants point out that according to col. 3, lines 25-28 of PEFFLY, the hair styling polymers described therein “possess adhesive properties such that they are capable of shaping or styling the hair, and should be removable by shampooing or rinsing the hair.” In other words, it would apparently not make sense to incorporate the hair styling polymers of PEFFLY into the hair care compositions of MULLER because they would not serve any useful purpose in these compositions (they would not be able to adhere to the hair but would be washed off).

Even if the facts set forth above were disregarded, there is yet another reason why there would be a disincentive rather than a motivation for one of ordinary skill in the art to add any of the hair styling polymers of PEFFLY to the hair care compositions of MULLER: the compositions of MULLER already contain a very narrowly defined and specialized polymer, i.e., a pregelatinized, crosslinked starch selected from a C<sub>2</sub> -C<sub>5</sub> hydroxyalkyl starch and a C<sub>2</sub> -C<sub>18</sub> acyl starch. One of

ordinary skill in the art would not be able to predict at all whether or not the addition of another polymer of a completely different type would interfere with one or more of the intended functions of the polymer of MULLER, i.e., as 1) stability improver, 2) viscosity regulator, 3) (co)emulsifier, 4) skin feel improving agent and 5) agent for improving hairdressing characteristics. MULLER does not provide any guidance in this regard. On the contrary, the body of the specification of this document is completely silent as to the possibility of using additional polymers in the compositions disclosed therein.

That one has to be careful with respect to incompatibility issues is hinted at by MULLER in col. 7, lines 24-28 thereof, where it is stated that the specific polymer disclosed therein "shows the benefit of being compatible with cationic compounds, i.e., it remains dispersed in the presence of the cationic compound and maintains its viscosity". One of ordinary skill in the art would consider the fact that other compounds such as, e.g., neutral, anionic and amphoteric compounds (and in particular, polymers) are not mentioned in this passage to be an indication that the latter compounds (polymers) are likely to create (incompatibility or other) problems.

In addition, also PEFFLY contains a warning to the effect that also the hair styling polymers disclosed therein are not combinable with each and every other compound. Specifically, in col. 3, lines 44-48 PEFFLY points out that the hair polymers disclosed therein and the other components "are selected such that the total composition will be compatible such that a substantially homogeneous solution or dispersion (preferably a microdispersion) is formed."

In view of the foregoing facts, there would be no expectation of success associated with the combination of the hair care compositions of MULLER and the hair styling polymers of PEFFLY.

Applicants submit that for at least all of the foregoing reasons, MULLER in view of PEFFLY is unable to render obvious the subject matter of any of the present claims, wherefore withdrawal of the rejection of claims 18-32 and 36-41 under 35 U.S.C. § 103(a) over MULLER in view of PEFFLY is warranted, which action is respectfully requested.

***Response to Rejection under 35 U.S.C. § 103(a) over MULLER in View of FLICK***

Claims 26-32 and 36-41 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MULLER and further in view of FLICK. The rejection alleges that MULLER teaches that the starch described therein acts as a stability improver, a viscosity regulator, a (co)emulsifier, a skin feel improving agent, and an agent for improving hairdressing characteristics and that MULLER also teaches to formulate the composition as a high viscosity alcoholic gel, and optionally to add additional thickening agents. The rejection concedes that MULLER does not specifically teach adding cationic cellulose or vinylpyrrolidone/vinyl acetate copolymer. In this regard, the Office relies on FLICK and alleges that FLICK “teaches that cationic quaternized celluloses are useful in hair care formulations and enhances wet and dry combing, increases body and reduces flyaway” and “also teaches that vinylpyrrolidone/vinyl acetate copolymers are film-formers used in hairsprays, gels, mousses, lotions, hair thickeners, etc.” Based on these allegations the rejection asserts that the subject matter of claims 26 and 36 would have been obvious to one of ordinary skill in the art.

Applicants respectfully traverse this rejection as well. Specifically, it is pointed out again that MULLER fails to discuss any polymers which are different from the starch derivatives taught

therein. In fact, the only specific polymers which are mentioned in MULLER and are different from the starch derivatives taught therein appear to be hydroxypropyl guar hydroxypropyltrimonium chloride (Jaguar C-162) which is employed in the hair rinse formulations of Examples 1-3 of MULLER and polyvinylpyrrolidone (Luviskol K30) which is employed in the shaving foam formulations of Examples 37-39 of MULLER. Since MULLER is silent regarding polymers which are different from the pregelatinized, crosslinked starch taught therein and because, as set forth above, col. 7, lines 24-28 MULLER contains an at least implicit warning that the presence of other compounds may interfere with one or more of the various functions of the pregelatinized, crosslinked starch, there is no motivation but rather a disincentive for one of ordinary skill in the art to add polymers such as a cationic cellulose or a vinylpyrrolidone/vinyl acetate copolymer to the compositions of MULLER.

It further is pointed out that MULLER discloses that the pregelatinized, crosslinked starch derivatives taught therein improve hairdressing characteristics, have substantive characteristics, i.e., can be drawn in human hair and make the latter more easily combable and sleek, and have good dispersibility in wet hair and good wet combability (see, e.g., abstract, col. 5, lines 61-65, col. 11, lines 25-28 and col. 12, lines 8-12). In view thereof it is not seen what additional benefits (and in particular, which additional benefits that are not compensated or outweighed by incompatibility issues with regard to the pregelatinized, crosslinked starch) one of ordinary skill in the art would expect to result from the incorporation of any of the polymers mentioned in FLICK into the hair care compositions of MULLER.

For example, the pregelatinized, crosslinked starch taught by MULLER appears to impart exactly the same favorable properties to the hair care compositions of MULLER as the quaternized celluloses mentioned in FLICK. This is an additional reason why one of ordinary skill in the art would not be motivated to employ the latter polymers in the hair care compositions of MULLER.

Applicants further point out that the fact that according to FLICK the PVP/VA copolymers form hard and glossy films is clearly a disincentive to incorporate these copolymers into the hair care compositions of MULLER. It also is pointed out again that the only hair care compositions which are mentioned (and exemplified) in MULLER are hair rinse compositions and shampoos. On the other hand, FLICK mentions that the PVP/VA copolymers disclosed therein form water-soluble films. Accordingly, employing the water-soluble PVP/VA copolymers in the hair care compositions of MULLER (which are intended to be removed with water) would not make any sense at all.

Applicants submit that for at least all of the foregoing reasons and the additional reasons set forth in the response to the previous Office Action, MULLER in view of FLICK is unable to render obvious the subject matter of any of the claims submitted herewith. In view thereof, it is respectfully requested that the rejection of claims 26-32 and 36-41 under 35 U.S.C. § 103(a) over MULLER in view of FLICK be withdrawn as well.

***Response to Rejection under 35 U.S.C. § 103(a) over MULLER in View of ROLLAT***

Claims 18-32 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over MULLER and further in view of ROLLAT. The rejection concedes that MULLER fails to teach anionic or amphoteric copolymers. In this regard, the rejection relies on ROLLAT, asserting that this

document teaches that anionic acrylate copolymers and amphoteric copolymers are hair styling copolymers suitable for styling conditioner, spray, conditioning spray, lotion, gel, tonic etc., and also teaches adding 0.01-3 % by weight of cationic conditioning polymers to the styling compositions. The rejection further alleges that in view thereof, it would have been obvious to one of ordinary skill in the art to modify the teachings of MULLER by incorporating anionic or amphoteric hair styling copolymers into the compositions taught therein.

This rejection is respectfully traversed as well. Specifically, it is submitted that there is no motivation for one of ordinary skill in the art to combine the teachings of MULLER and ROLLAT. In this regard, it is again pointed out that MULLER is directed to a composition for cleaning or caring for the skin, teeth or hair or for cleaning smooth surfaces, which composition has an aqueous phase containing a pregelatinized, crosslinked starch selected from a C<sub>2</sub>-C<sub>5</sub> hydroxyalkyl starch and a C<sub>2</sub>-C<sub>18</sub> acyl starch. The starch acts 1) as a stability improver, 2) as a viscosity regulator, 3) as a (co)emulsifier, 4) as a skin feel improving agent and 5) as an agent for improving hairdressing characteristics. See, e.g., abstract of MULLER.

Accordingly, MULLER does not focus on hair care compositions but rather is directed generally to compositions for cleaning or caring for the skin, teeth or hair or for cleaning smooth surfaces. For example, in addition to hair rinses and shampoos, the Examples of MULLER describe products as diverse as foam bath compositions, O/W cosmetic creams, alcohol-containing lotions with a deodorant action, alcohol containing creams with a light protection action, O/W body lotions, shaving foams, W/O body creams, dishwashing compositions, a dental cream, an emulsifier-free O/W body lotion, and a thickened hair bleaching system. Virtually the only thing these diverse

products have in common is that they all contain the pregelatinized, crosslinked starch selected from a C<sub>2</sub>-C<sub>5</sub> hydroxyalkyl starch and a C<sub>2</sub>-C<sub>18</sub> acyl starch which is described in detail by MULLER and which clearly represents the core of the compositions described therein.

ROLLAT, on the other hand, is directed to a reshaping hair styling composition comprising, optionally in a cosmetically acceptable vehicle, at least one (meth)acrylic copolymer, wherein the at least one (meth)acrylic copolymer comprises: (a) units derived from at least one monomer chosen from butyl (meth)acrylate monomers, (b) units derived from at least one monomer chosen from hydroxy alkyl (meth)acrylate monomers, and (c) optional units derived from at least one co-polymerizable monomer other than said (a) and (b) monomers, wherein said composition provides a reshaping effect. See e.g., abstract of ROLLAT.

Applicants are unable to see why one of ordinary skill in the art who wants to modify one specific example of the many types of compositions which are described by MULLER, i.e., hair care compositions (comprising a pregelatinized, crosslinked starch selected from a C<sub>2</sub>-C<sub>5</sub> hydroxyalkyl starch and a C<sub>2</sub>-C<sub>18</sub> acyl starch), would have any apparent reason to consult a document (ROLLAT) which relates to compositions which have virtually nothing in common with the hair care (or any other) compositions of MULLER, i.e., hair styling compositions which comprise a specific (meth)acrylic copolymer, and neither has the Examiner provided any explanation in this regard.

At any rate, it is not seen that the hair styling copolymers of ROLLAT, i.e., the (meth)acrylic copolymers disclosed therein are anionic or amphoteric copolymers, as alleged at the top of page 6 of the present Office Action. Specifically, particularly from the disclosure in paragraphs [0029]-[0031] it becomes apparent that the (meth)acrylic copolymers of ROLLAT are predominantly non-ionic

polymers. In this regard, it is noted the Examiner's reliance on paragraph [0131] of ROLLAT (where amphoteric polymers are mentioned) may be an indication that the Examiner has misread ROLLAT. The anionic, cationic, amphoteric etc., polymers mentioned in ROLLAT in the passage from paragraph [0051] to [0190] are not examples of the (meth)acrylic hair styling copolymers of ROLLAT but examples of optional components of the hair styling compositions taught therein. In this regard, paragraph [0050] of ROLLAT may particularly be referred to.

Even if the facts set forth above were disregarded, there is yet another reason why there would be a disincentive rather than a motivation for one of ordinary skill in the art to add any of the hair styling polymers of ROLLAT to the hair care compositions of MULLER: the compositions of MULLER already contain a very narrowly defined and specialized polymer, i.e., a pregelatinized, crosslinked starch selected from a C<sub>2</sub> -C<sub>5</sub> hydroxyalkyl starch and a C<sub>2</sub> -C<sub>18</sub> acyl starch. One of ordinary skill in the art would not be able to predict at all whether or not the addition of another polymer of a completely different type would interfere with one or more of the intended functions of the polymer of MULLER, i.e., as 1) stability improver, 2) viscosity regulator, 3) (co)emulsifier, 4) skin feel improving agent and 5) agent for improving hairdressing characteristics. MULLER does not provide any guidance in this regard. On the contrary, the body of the specification of this document is completely silent as to the possibility of using additional polymers in the compositions disclosed therein.

That one has to be careful with respect to incompatibility issues is hinted at by MULLER in col. 7, lines 24-28 thereof, where it is stated that the specific polymer disclosed therein "shows the benefit of being compatible with cationic compounds, i.e., it remains dispersed in the presence of

the cationic compound and maintains its viscosity". One of ordinary skill in the art would consider the fact that other compounds such as, e.g., neutral, anionic and amphoteric compounds (and in particular, polymers) are not mentioned in this passage to be an indication that the latter compounds (polymers) are likely to create incompatibility (or other) problems.

In addition, also ROLLAT contains an at least implicit warning to the effect that also the (meth)acrylic hair styling polymers disclosed therein are not combinable with each and every other compound. Specifically, at the beginning of paragraph [0050] ROLLAT notes that the optional components which may be present in the hair styling compositions disclosed therein should "not substantially interfere with the reshaping properties of the at least one (meth)acrylic copolymer".

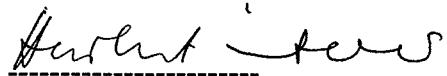
In view of the foregoing facts, there would be no expectation of success associated with the combination of the hair care compositions of MULLER and the hair styling polymers of ROLLAT.

Applicants submit that at least for all of the foregoing reasons, MULLER in view of ROLLAT is unable to render obvious the subject matter of any of the present claims, wherefore the rejection of claims 18-32 under 35 U.S.C. § 103(a) over MULLER in view of ROLLAT is without merit and withdrawal thereof is respectfully requested as well.

**CONCLUSION**

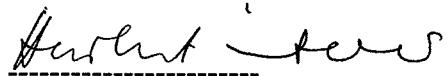
In view of the foregoing, it is believed that all of the claims in this application are in condition for allowance, which action is respectfully requested. If any issues yet remain which can be resolved by a telephone conference, the Examiner is respectfully invited to contact the undersigned at the telephone number below.

Respectfully submitted,  
Michael DEMITZ et al.



Neil F. Greenblum  
Reg. No. 28,394

June 30, 2008  
GREENBLUM & BERNSTEIN, P.L.C.  
1950 Roland Clarke Place  
Reston, VA 20191  
(703) 716-1191

  
Heribert F. Muensterer  
Reg. No. 50,417